



6p1731 ✓
JPCW

PTO/SB/21 (04-04)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/020,461
Filing Date	December 14, 2001
First Named Inventor	M'Saad, Hichem
Art Unit	1731
Examiner Name	Hoffmann, John M.

Total Number of Pages in This Submission

Attorney Docket No. A6123/T43700

ENCLOSURES (Check all that apply)

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Fee Transmittal Form
<input type="checkbox"/> Fee Attached
<input type="checkbox"/> Amendment/Reply
<input type="checkbox"/> After Final
<input type="checkbox"/> Affidavits/declaration(s)
<input type="checkbox"/> Extension of Time Request
<input type="checkbox"/> Express Abandonment Request
<input checked="" type="checkbox"/> Information Disclosure Statement
<input type="checkbox"/> Certified Copy of Priority Document(s)
<input type="checkbox"/> Response to Missing Parts/Incomplete Application
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)
<input type="checkbox"/> Licensing-related Papers
<input type="checkbox"/> Petition
<input type="checkbox"/> Petition to Convert to a Provisional Application
<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address
<input type="checkbox"/> Terminal Disclaimer
<input type="checkbox"/> Request for Refund
<input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance Communication to Technology Center (TC)
<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
Return Postcard, copies of seven (7) cited references |
|---|--|--|

Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Townsend and Townsend and Crew LLP
Signature	Patrick M. Boucher
Date	2004 November 8

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

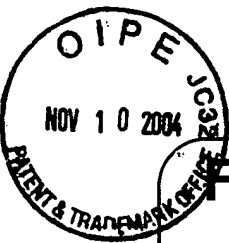
Typed or printed name Nicole Wartell

Signature

Nicole Wartell

Date

11/08/2004



FEE TRANSMITTAL for FY 2005

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180

Complete if Known

Application Number	10/020,461
Filing Date	December 14, 2001
First Named Inventor	M'Saad, Hichem
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Art Unit	1731
Attorney Docket No.	A6123/T43700

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit
Account
Number

20-1430

Deposit
Account
Name

Townsend and Townsend and Crew LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	790	2001	395	Utility filing fee	
1002	350	2002	175	Design filing fee	
1003	550	2003	275	Plant filing fee	
1004	790	2004	395	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1)

(\$)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims		Extra Claims		Fee from below		Fee Paid
Independent Claims		** =		X		
Multiple Dependent				X		

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	88	2201	44	Independent claims in excess of 3
1203	300	2203	150	Multiple dependent claim, if not paid
1204	88	2204	44	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	430	2252	215	Extension for reply within second month	
1253	980	2253	490	Extension for reply within third month	
1254	1,530	2254	765	Extension for reply within fourth month	
1255	2,080	2255	1,040	Extension for reply within fifth month	
1401	340	2401	170	Notice of Appeal	
1402	340	2402	170	Filing a brief in support of an appeal	
1403	300	2403	150	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,370	2501	685	Utility issue fee (or reissue)	
1502	490	2502	245	Design issue fee	
1503	660	2503	330	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	180
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	790	2809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid SUBTOTAL (3)

(\$)180

SUBMITTED BY

Complete (if applicable)

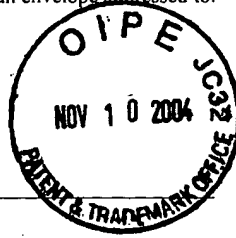
Name (Print/Type)	Patrick M. Boucher	Registration No. (Attorney/Agent)	44,037	Telephone	303-571-4000
Signature		Date	2004 November 8		

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On Nov 8, 2004



PATENT
Attorney Docket No.: A6123/T43700
AMAT No.: : 006123/DD/HDP/JW
TTC Reference No. 016301-043700US

TOWNSEND and TOWNSEND and CREW LLP

By: Nicole Warren
Nicole Warren

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

HICHEM M'SAAD et al.

Application No.: 10/020,461

Filed: December 14, 2001

For: METHOD OF MANUFACTURING
AN OPTICAL CORE

Examiner: Hoffmann, John M.

Art Unit: 1731

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER 37
CFR §1.97 and §1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

11/10/2004 SSITHB1 00000069 201430 10020461
01 FC:1806 180.00 DA

Applicant is resubmitting the foreign and non-patent literature references listed on forms PTO/SB/08A and PTO/SB/08B in order to correct any deficiency from previous submissions. The following translations of the abstracts of the foreign references are provided, and constitute the entire understanding of the relevance of the references as understood by the undersigned. No English translation of the entire references is known to be available to any individual specified in 37 C.F.R. §1.56(c).

1. EP 0 659 902

Plasma-assisted CVD of a silica thin film on a substrate involves: (a) introducing oxygen and opt. argon into a vacuum chamber, igniting the plasma and then introducing silane; and (b) carrying out the process under the conditions of 40-80 (pref. 60) microbars gas pressure in the chamber, 0-35 (pref. 10) cu.cm/min. argon supply rate, 12-24 (pref. 12) cu.cm/min. silane supply rate, 13-38 (pref. 26-38) cu.cm/min. oxygen supply rate, 200-300 (pref. 200) deg. C substrate temp. and 750- 1100 (pref. 1100) W plasma reactor power. Phosphine may also be introduced into the chamber to dope the silica thin film.

Also claimed in an appts. for carrying out silica thin film CVD.

USE - E.g. in the production of a planar optical waveguide on a silicon substrate or in the mfg. of a flat LCD screen

ADVANTAGE - The process allows deposition of silica containing very little hydrogen (10-100 ppm) at close to 200 deg. C and produces 0.1-10 microns thick deposits in a few minutes.

2. EP 0 735 160

In a process for CVD of a silica thin film, for an integrated optical waveguide, from O₂ and SiCl₄ with microwave-generated plasma assistance, the novelty is that: (a) the substrate temp. is maintained at 200-800 (pref. 500-600) deg.C; (b) the CVD chamber pressure is maintained at 1-20 Pa; and (c) the SiCl₄-contg. reactive gas is injected between the plasma and the substrate within the chamber. Pref. the plasma is created from O₂ and the ractive gas also

contains a carrier gas and opt. one or more dopants such as GeCl_4 , C_2F_6 , POCl_3 and/or BCl_3 .

Also claimed are: (i) a CVD appts. for carrying out the above process; and (ii) an integrated optical waveguide mfg. method including the above process.

ADVANTAGE - The process produces a thin film with improved thickness and optical index uniformity, while maintaining high deposition rate, a reduced number of process steps and a low process tem. (< 800 deg. C). Additionally, the thin film has acceptable optical attenuation at 1.55 and 1.3 μm , without the need for a supplementary annealing step.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Patrick M. Boucher
Reg. No. 44,037

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/020,461	
			Filing Date	December 14, 2001	
			First Named Inventor	M'Saad, Hichem	
			Art Unit	1731	
Sheet	1	of	2	Examiner Name	Hoffmann, John M.
				Attorney Docket Number	A6123/T43700

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	A1	US-6,080,683	06-27-2000	Faur et al.	
	A2	US-6,204,200 B1	03-20-2001	Shieh et al.	
	A3				
	A4				
	A5				

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	B1	EPO	EP 0 659 902	A1	06-28-1995			<input type="checkbox"/>
	B2	EPO	EP 0 735 160	B1	08-30-2000			<input type="checkbox"/>
	B3							<input type="checkbox"/>

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
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			Filing Date	December 14, 2001	
			First Named Inventor	M'Saad, Hichem	
			Art Unit	1731	
			Examiner Name	Hoffmann, John M.	
Sheet	2	of	2	Attorney Docket Number	A6123/T43700

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1	MATTHEWS, MANYALIBO J. et al. "Characterization of phosphosilicate thin films using confocal Raman microscopy" Review of Scientific Instruments, May 2000, pp. 2117-2120, Vol. 71, No. 5, American Institute of Physics.	
	C2	VALETTE, S. et al. "Si-Based Integrated Optics Technologies" Solid State Technology, February 1989, pp. 69-75.	
	C3	VALETTE, S. et al. "State of the art of integrated optics technology at LETI for achieving passive optical components" Journal of Modern Optics, 1988, pp. 993-1005, Vol. 35, No. 6.	

Examiner Signature		Date Considered	
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¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

² Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.